

present expertise based on previous indicators injudiciously referred to as inferior. No one is immune to such criticism by this inference. The educational process should be one of learning to a point where basic concepts are well understood and where future self-development is possible. An autonomous Board of Certification's examination will be evolved as new developments take place. This was and still is the case with the current registry examinations.

Somewhere along the line we must accept each

examination for what it is—an indication of the student's knowledge at that precise point in time.

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#### UPTAKE OF RADIOSTRONTIUM IN LUNGS AND OTHER EXTRAOSSEOUS TISSUES

We read with great interest the article entitled "<sup>85</sup>Sr Lung Scan in a Case of Pulmonary Ossification" (1). The authors of this article have illustrated deposition of radiostrontium in lungs with active ossification. However, uptake of radiostrontium can occur in otherwise normal lungs with radiographically undemonstrable calcification (2). There are distinct differences between these two cases. In the latter case, not only were the lungs normal radiologically, but also postmortem examination performed at a later date failed to show macroscopic and microscopic evidence for calcification in the lungs. Although the exact mechanism of Sr deposition in an apparent normal lung is not yet clear, a working hypothesis is proposed. The hypothesis says that administration of tracer quantity of radiostrontium to patients with hypercalcemia or hyperphosphatemia possibly causes in vivo formation of strontium-calcium-phosphate macroaggregates. This speculation is based on the similar observation in in vitro experiments by Chaudhuri, et al (3).

Since the information on the radiostrontium uptake in extraosseous tissues is scattered in the literature, there exists a need for assembling it in one place. From the extensive up-to-date literature search and from our own experiences, one can summarize the causes of radiostrontium uptake in extraosseous tissues (lungs, liver, soft tissue, and tumor) as follows: (A) blood pool (4,5), (B) osteogenic sarcoma metastasizing to lung (6,7) and liver (8), (C) osseous metaplasia in a metastasis of nonosseous origin (9), (D) aspergillus niger infection (10), (E) strontium phosphate macroaggregates (2,3), (F) pulmonary ossification (1,11), (G) specific uptake of strontium by tumor cells (12,13), and (H) strontium phosphate colloid uptake in the liver (14-16).

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